

REMARKS

This is in full and timely response to the Final Office Action mailed on September 22, 2003. Reexamination in light of the following remarks is respectfully requested.

Claims 23-44 are currently pending in this application, with claims 23, 24, 26, 36, 38, 39, 43 and 44 being independent.

No new matter has been added.

This amendment *prima facie* places the case in condition for allowance. Alternatively, it places this case in better condition for appeal. Accordingly, entry of this amendment is respectfully requested. No new matter has been added.

Applicant, seeking review of the prematureness of the final rejection within the Final Office Action, respectfully requests reconsideration of the finality of the Office action for the reasons set forth hereinbelow. See M.P.E.P §706.07(c).

Rejection of under 35 U.S.C. §102 and 35 U.S.C. §103

Claims 23 and 28-29 were rejected under 35 U.S.C. §102 as being allegedly anticipated by Applicant's admitted prior art (APA).

Claims 23-44 were rejected under 35 U.S.C. §103 as being allegedly obvious over Applicant's related art in view of U.S. Patent No. 5,634,071 to Dewa et al. (Dewa).

These rejections are traversed at least for the following reasons.

While not conceding the propriety of these rejections, and in order to further the prosecution of the application, the features of claim 28 have been wholly incorporated into claim 23 to form amended claim 23 and the features of claim 40 have been wholly incorporated into claim 36 to form amended claim 36. Thus, prior claim 28 is now amended claim 23 and prior claim 40 is now amended claim 36.

Claim 23

Since prior claim 28 is now amended claim 23, a new search and/or consideration is not required. Accordingly, entry of this amendment is proper.

Claim 23 and the claims dependent thereon include:

a first processor element of the plurality of processor elements for executing a first user program of a plurality of user programs, the first processor element executes a wait instruction, the wait instruction suspends processing of the first user program; and

a second processor element of the plurality of processor elements for executing a second user program of the plurality of user programs, the second processor element executes a wait release instruction, the wait release instruction commands the first processor element to resume the processing of the first user program,

wherein the first processor element executes a program end instruction, the program end instruction resuming the processing of the second user program.

The Office Action contends that the Applicant's relate art teaches the details of the instruction code "end" executed in the processor elements 111 through 114.

However, please note that while claim 23 provides that the first processor element executes a program end instruction, the program end instruction resuming the processing of the second user program. Yet, the Applicant's related art fails to disclose, teach or suggest the alleged first processing element 111 as executing a program end instruction.

In particular, note that figure 8 of the specification is a view for explaining the operation of the general multiprocessor shown in figure 5 (page 17, lines 19-20). Figure 8 arguably depicts processor elements 111 through 114. The Office Action

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contends that the Applicant's related art teaches a first processing element 111 and a second processor element 114.

However, Applicant's related art arguably teaches that:

the last instruction code "end" of the subprogram Prg\_D is executed in the processor element 114 (page 7, lines 6-8),

the last instruction code "end" of the subprogram Prg\_C is executed in the processor element 113 (page 7, lines 17-19),

in the multiprocessor 1 of the related art, the synchronization between the programs (processes) executed in different processor elements is a simple one of release of a synchronization waiting state caused by execution of an instruction code "wait" in one processor element based on execution of an instruction code "end" indicating completion of execution of a program in another processor element (page 8, line 18 to page 9, line 1).

Figure 8 of Applicant's related art fails to disclose, teach or suggest the first processor element 111 as executing a program end instruction. In this regard, no program end instruction is depicted within figure 8 for the alleged first processor element 111.

Moreover, figure 8 of the Applicants related art fails to disclose, teach or suggest a program end instruction that resumes processing of the second user program.

Claim 24

Since claim 24 has been placed into independent form, a new search and/or consideration is not required. Accordingly, entry of this amendment is proper.

Claim 24 includes:

a first processor element of the plurality of processor elements for executing a first user program of a plurality of user programs, the first processor element executes a wait instruction, the wait instruction suspends processing of the first user program; and

a second processor element of the plurality of processor elements for executing a second user program of the plurality of user programs, the second processor element executes a wait release instruction, the wait release instruction commands the first processor element to resume the processing of the first user program,

wherein the second processor element executes a synchronization wait instruction, the synchronization wait instruction suspends processing of the second user program,

the wait instruction suspending processing of the first user program while resuming the processing of the second user program.

The Office Action contends that the Applicant's related art teaches a first processing element 111 and a second processor element 114.

The Office Action contends that the Applicant's related art teaches the first processor element executes a wait instruction "wait" that suspends processing of the first user program.

The Office Action further contends that the Applicant's related art teaches the second processor element 114 executing an "end" as a wait release instruction, wherein the "end" commands the first processor element 111 to resume the processing of the first user program.

However, while figure 8 of the Applicants related art arguably teaches an "end" instruction processed by the alleged second processor element 114, figure 8 of the Applicants related art fails to disclose, teach or suggest the second processor element 114 also executing a synchronization wait instruction

that suspends processing of the second user program 114. This feature has not been addressed within the Final Office Action. In this regard, the Final Office Action contends that the first processing element 111 of figure 8 enters into a synchronized waiting state.

In addition, figure 8 of the Applicants related art fails to disclose, teach or suggest the wait instruction suspending processing of the first user program while resuming the processing of the second user program. This feature has not been addressed within the Final Office Action.

Claim 26

Since claim 26 has been placed into independent form, a new search and/or consideration is not required. Accordingly, entry of this amendment is proper.

Claim 26 includes:

a first processor element of the plurality of processor elements for executing a first user program of a plurality of user programs, the first processor element executes a wait instruction, the wait instruction suspends processing of the first user program; and



a second processor element of the plurality of processor elements for executing a second user program of the plurality of user programs, the second processor element executes a wait release instruction, the wait release instruction commands the first processor element to resume the processing of the first user program,

wherein the second processor element executes a next instruction without suspending the processing of the second user program after executing the wait release instruction.

The Office Action contends that the Applicant's related art teaches a first processing element 111 and a second processor element 114.

The Office Action further contends that the Applicant's related art teaches the second processor element 114 executing an "end" as a wait release instruction.

However, figure 8 of the Applicants related art fails to disclose, teach or suggest the second processor element 114 executing a next instruction without suspending the processing of the second user program after executing the alleged wait release instruction ("end"). Instead, figure 8 of the Applicants related art depicts the termination of the second user program after executing the alleged wait release instruction ("end").

Claim 36

Since prior claim 40 is now amended claim 36, a new search and/or consideration is not required. Accordingly, entry of this amendment is proper.

Claim 36 and the claims dependent thereon include:

suspending processing of a first user program of a plurality of user programs, the first user program including a wait instruction, the first processor element executing the wait instruction to suspend the processing of a first user program; and

resuming the processing of the first user program by executing a wait release instruction, the wait release instruction being including within a second user program of a plurality of user programs, a second processor element of the plurality of processor elements for executing the wait release instruction,

the wait release instruction commanding the first processor element to resume the processing of the first user program; and

executing a program end instruction to resume the processing of the second user program, wherein the first processor

element executes the program end instruction.

The Office Action contends that the Applicant's relate art teaches the details of the instruction code "end" executed in the processor elements 111 through 114.

However, please note that while claim 23 provides that the first processor element executes a program end instruction, the program end instruction resuming the processing of the second user program. Yet, the Applicant's related art fails to disclose, teach or suggest the alleged first processing element 111 as executing a program end instruction.

In particular, note that figure 8 of the specification is a view for explaining the operation of the general multiprocessor shown in figure 5 (page 17, lines 19-20). Figure 8 arguably depicts processor elements 111 through 114. The Office Action contends that the Applicant's related art teaches a first processing element 111 and a second processor element 114.

However, Applicant's related art arguably teaches that:

the last instruction code "end" of the subprogram Prg\_D is executed in the processor element 114 (page 7, lines 6-8),

the last instruction code "end" of the subprogram Prg\_C is executed in the processor element 113 (page 7, lines 17-19),

in the multiprocessor 1 of the related art, the synchronization between the programs (processes) executed in different processor elements is a simple one of release of a synchronization waiting state caused by execution of an instruction code "wait" in one processor element based on execution of an instruction code "end" indicating completion of execution of a program in another processor element (page 8, line 18 to page 9, line 1).

Figure 8 of Applicant's related art fails to disclose, teach or suggest the first processor element 111 as executing a program end instruction. In this regard, no program end instruction is depicted within figure 8 for the alleged first processor element 111.

Moreover, figure 8 of the Applicants related art fails to disclose, teach or suggest a program end instruction that resumes processing of the second user program.

Claim 38

Since claim 38 has been placed into independent form, a new search and/or consideration is not required. Accordingly, entry of this amendment is proper.

Claim 38 includes:

suspending processing of a first user program of a plurality of user programs, the first user program including a wait instruction, the first processor element executing the wait instruction to suspend the processing of a first user program; and

resuming the processing of the first user program by executing a wait release instruction, the wait release instruction being including within a second user program of a plurality of user programs, a second processor element of the plurality of processor elements for executing the wait release instruction,

the wait release instruction commanding the first processor element to resume the processing of the first user program,

wherein in the step of suspending processing of the first user program, the processing of the first user program is suspended while resuming the processing of the second user program.

The Office Action contends that the Applicant's related art teaches a first processing element 111 and a second processor element 114.

The Office Action contends that the Applicant's related art teaches the first processor element executes a wait instruction

"wait" that suspends processing of the first user program.

The Office Action further contends that the Applicant's related art teaches the second processor element 114 executing an "end" as a wait release instruction, wherein the "end" commands the first processor element 111 to resume the processing of the first user program.

However, while figure 8 of the Applicants related art arguably teaches an "end" instruction processed by the alleged second processor element 114, figure 8 of the Applicants related art fails to disclose, teach or suggest the second processor element 114 also executing a synchronization wait instruction that suspends processing of the second user program 114. This feature has not been addressed within the Final Office Action. In this regard, the Final Office Action contends that the first processing element 111 of figure 8 enters into a synchronized waiting state.

In addition, figure 8 of the Applicants related art fails to disclose, teach or suggest suspending processing of the first user program while resuming the processing of the second user program. This feature has not been addressed within the Final Office Action.

#### Claim 39

Since claim 39 has been placed into independent form, a new

search and/or consideration is not required. Accordingly, entry of this amendment is proper.

Claim 39 includes:

suspending processing of a first user program of a plurality of user programs, the first user program including a wait instruction, the first processor element executing the wait instruction to suspend the processing of a first user program;

resuming the processing of the first user program by executing a wait release instruction, the wait release instruction being including within a second user program of a plurality of user programs, a second processor element of the plurality of processor elements for executing the wait release instruction,

the wait release instruction commanding the first processor element to resume the processing of the first user program; and

executing a next instruction without suspending the processing of the second user program after executing the wait release instruction, the second processor element executing the next instruction.

The Office Action contends that the Applicant's related art teaches a first processing element 111 and a second processor element 114.

The Office Action further contends that the Applicant's related art teaches the second processor element 114 executing an "end" as a wait release instruction.

However, figure 8 of the Applicants related art fails to disclose, teach or suggest the second processor element 114 executing a next instruction without suspending the processing of the second user program after executing the alleged wait release instruction ("end"). Instead, figure 8 of the Applicants related art depicts the termination of the second user program after executing the alleged wait release instruction ("end").

Claim 43

The Office Action contends that claim 43 is functionally equivalent to claim 23.

In response to this contention, claim 23 is one claim while claim 43 is another claim. Treatment of claims 23 and 43 individually and on there own merits is respectfully requested.

Claim 43 as finally rejected includes:

first processing and second processing to be performed in parallel based on instructions written in programs, wherein



the first processing executes a wait instruction to suspend the first processing; and

the second processing executes a wait release instruction to resume execution of the first processing,

the second processing enters a synchronization waiting state by executing the wait release instruction until the first processing enters the waiting state when the first processing is not in the waiting state.

The Office Action contends that having the other processor pause for synchronization when release the wait of the first process would naturally have flowed from Dewa's parallel process coordination teachings.

However, the second processing enters a synchronization waiting state by executing the wait release instruction until the first processing enters the waiting state when the first processing is not in the waiting state is not found within the teachings of Applicants related art and Dewa, either individually or in combination.

Moreover, this unsupported assertion amounts to nothing more than conclusions that are personal in nature. In this regard, the teachings, suggestions or incentives supporting the obviousness-

type double patenting rejection must be clear and particular. Broad conclusory statements, standing alone, are not evidence. *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

As a rule, "assertions of technical facts in areas of esoteric technology must always be supported by citation to some reference work recognized as standard in the pertinent art and the appellant given, in the Patent Office, the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference." (Citations omitted). *In re Pardo and Landau*, 214 USPQ 673, 677 (CCPA 1982). The support must have existed at the time the claimed invention was made. *In re Merck & Co., Inc.*, 231 USPQ 375, 379 (Fed. Cir. 1986).

"Allegations concerning specific 'knowledge' of the prior art, which might be peculiar to a particular art should also be supported and the appellant similarly given the opportunity to make a challenge." (Citations omitted). *In re Pardo and Landau*, 214 USPQ 673, 677 (CCPA 1982).

In addition, "it is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. The references themselves must provide some teaching whereby the applicant's combination would have been obvious" (citations omitted). *In re Gorman*, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). See also *In re Dembiczak*, 50 USPQ2d

1614, 1616 (Fed. Cir. 1999) (rejection based upon hindsight is reversed).

Moreover, the procedures established by Title 37 of the Code of Federal Regulations expressly entitle the Applicant to an Examiner's affidavit upon request. Specifically, "when a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons." 37 C.F.R. 1.104(d)(2).

Also note that the failure to provide any objective evidence to support the challenged use of Official Notice constitutes **clear and reversible error**. *Ex parte Natale*, 11 USPQ2d 1222, 1227-1228 (Bd. Pat. App. & Int. 1989).

Accordingly, **Applicant hereby requests a reference or an Examiner's affidavit** to support this officially noticed position of obviousness or what is well known. Further note that if this reference or Examiner's affidavit is not provided, the assertions of what is well known **must be withdrawn**. See M.P.E.P. 2144.03.

In addition, this assertion amounts to nothing more than an "obvious-to-try" situation. Specifically, "an 'obvious-to-try' situation exists when a general disclosure may pique the scientist's curiosity, such that further investigation might be done as a result of the disclosure, but the disclosure itself does not contain a sufficient teaching of how to obtain the desired result, or that the claimed result would be obtained if certain directions were pursued." *In re Eli Lilly & Co.*, 14 USPQ2d 1741, 1743 (Fed. Cir. 1990). Moreover, "an invention is 'obvious to try' where the prior art gives either no indication of which parameters are critical or no direction as to which of many possible choices is likely to be successful." *Merck & Co. Inc. v. Biocraft Laboratories Inc.*, 10 USPQ2d 1843, 1845 (Fed. Cir. 1989).

Here, Applicants related art and Dewa do not contain a sufficient teaching of how to obtain the desired result, or that the claimed result would be obtained if certain directions were pursued. "Obvious to try" is not the standard under §103. *In re O'Farrell*, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988).

Claim 44

Claim 44 includes:

first processing and second processing to be performed in parallel based on instructions written in programs, wherein

the first processing executes a wait instruction to suspend the first processing; and

the second processing executes a wait release instruction to resume execution of the first processing,

the second processing executing a next instruction after executing the wait release instruction without suspending the second processing.

The Office Action contends that the Applicant's related art teaches a first processing element 111 and a second processor element 114.

The Office Action further contends that the Applicant's related art teaches the second processor element 114 executing an "end" as a wait release instruction.

However, figure 8 of the Applicants related art fails to disclose, teach or suggest the second processor element 114 executing a next instruction without suspending the processing of the second user program after executing the alleged wait release instruction ("end"). Instead, figure 8 of the Applicants related art depicts the termination of the second user program after executing the alleged wait release instruction ("end").

Withdrawal of these rejections and allowance of the claims is respectfully requested.

**Conclusion**

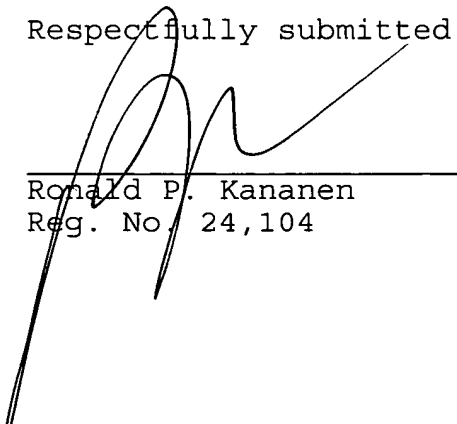
For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the amendments and remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753, or the undersigned attorney.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

Respectfully submitted,

Date: October 17, 2003

  
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